If TOSCO participates in a commercialization venture supported by a federal loan guarantee, we have indicated our willingness to allow our existing technology to be used without royalty charge. Should the Government become operator of the project through default, it would have the benefit of that royalty-free license. However, we would not be willing to enter into arrangements which would subject our proprietary technology to public disclosure or under which our background technology could become subsumed in relatively minor improvements which could fall within the broad definition of "inventions" automatically vesting in the United States under Section 9 of the Nonnuclear Act.

We recognize that Section 9 of the Act gives the Administrator authority to waive the rights of Government and directs the Administrator, in exercising this authority, to consider the extent to which technology has been developed at private expense and the extent to which a waiver is necessary to secure participation by a particular party. Nevertheless, in the case of commercial demonstrations, we see several provisions in Section 9 which could prevent a company with valuable existing technology from obtaining acceptable terms of waiver from the Administrator. In the first place, the reporting, public notice, and hearing requirements which must be included in each waiver under Subsection 9(h) would almost certainly involve public disclosure of existing background technology.

In addition, the paid-up license which apparently must be reserved for the federal government under paragraph (2) of Subsection 9(h) would be particularly unacceptable to a proprietor of privately developed oil shale technology, since such a reservation could effectively eliminate from the future licensing market the vast oil shale reserves owned by the United States, which constitute approximately 80 percent of the domestic oil shale suitable for commercial development. Moreover, while we doubt it was the intent of Congress, Section 9 could be interpreted to require that the right to sublicense also be reserved for the United States, since paragraph (2) refers to the right to sell the invention instead of referring to the sale of products made with the invention.

For the reasons outlined above, TOSCO believes that the effectiveness of the Synthetic Fuels Commercialization Program could be jeopardized by the application of Section 9 of the Nonnuclear Act, unless the requirements of Section 9 were substantially modified. Accordingly, we have recommended that the pending loan guarantee legislation, or the Conference Report on the legislation, should contain language specifically confirming that Congress does not intend Section 9 to apply.

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November 17, 1975

DELIVERED BY MESSENGER

Mr. Kenneth L. Cage
c/o Mrs. Rita Kidd
Energy Research and Development
Administration
Room B-206
Germantown, Maryland

Dear Mr. Cage:

On behalf of The Oil Shale Corporation ("TOSCO"), I enclose herewith three copies of comments in connection with ERDA's hearing on patent policy to be held November 18 and 19, 1975.

Very truly yours,

Marcus W. Sisk, Jr.

Marcus W. Sisk, Jr.

Enclosures (3)

With reference to the Background Patents provisions, we are pleased to see that considerable effort has been taken to minimize the applicability thereof. While the principles of these provisions are quite satisfactory, we would strongly urge one change in language. Namely, the expression "subject of this contract" as used in Paragraph (k)(2) and (k)(3) is not clear and may lead to interpretations broader than would be equitable to the Contractor. It is clear from §9-9.107.5(b)(3) that ERDA's intention for requiring licensing of background patents is only to permit the licensee freedom "to utilize the results of the contract work" without risk of infringing background patents. Yet, the licensing requirements are said to be for the "purposes of practicing a subject of this contract". In Paragraph (k)(2) where "background patents" is in part defined, freedom is sought to "practice. . .any specific process, method, machine, manufacture or composition of matter. . .which is a subject of the research, development or demonstration work performed under this contract". Clearly considerable confusion could result from the use of such three different phrases. Certainly, "subject of this contract" would have a broader connotation than "results of the contract work", and could include art which was not in fact developed under the contract effort. Therefore, we would strongly urge that Paragraphs (k)(2) and (k)(3) be amended to delete "a subject of" and substitute "the results of".

As was noted above, we were favorably impressed with Subpart B, particularly the standard Technical Data Requirements and Rights in Technical Data clauses. On the other hand, some of the optional clauses and modifications will at times be difficult to accept. We are particularly concerned with that optional clause permitting the Government to disclose Contractor's proprietary data to "other contractors participating in the Government's program of which this contract is a part. . .". While such provisions may well be necessary to meet the Government's objective in some situations, there are inadequate safeguards to protect this proprietary data from misappropriation by such "other contractors". Indeed, such disclosure could virtually destroy the proprietary nature of the data. The restrictive legend alone placed on such data does not provide any sanctions against misappropriations by such "other contractors". Accordingly, we would propose that the subject optional clause would be acceptable only if the Government would extract written agreements from such other contractors that it will not disclose or utilize such proprietary data in any effort other than the Government contract under which it was received, and that the disclosing contractor be given some recourse to enforce the restriction. The usual exceptions should of course be included, i.e. that the restriction is not applicable to data which (a) is already known to the other contractor, (b) subsequently becomes known to the other contractor through other sources without restriction and without misappropriation from the contractor, (c) is already in the public domain, and (d) subsequently falls into the public domain.

apprehension, delay, paper work and of course added costs. Under the present provisions practically every prospective contractor will feel compelled to apply for an advance waiver. Should he fail to obtain an advance waiver, he will apply for a waiver of identified invention with practically every subject invention reported. This will not only add a mountain of paper work to burden both the contractor and ERDA, but the limited times available for reporting subject inventions and for applying for waivers thereon will surely cause many additional problems.

In spite of the lengthy and complex patent provisions, the contractor has no assurances whatsoever at the time of contracting as to what his patent rights will be. While the contractor is given a royalty-free license, this license is revocable. While the contractor may request waivers, there are no indications to suggest the conditions under which a waiver will be granted, nor are there any guidelines to assure that ERDA will follow a uniform policy in granting a waiver. Whether or not a waiver is granted is entirely up to ERDA's discretion, with the contractor having no recourse to what he considers an unfair decision.

In view of ERDA's primary mission, we can understand why ERDA has chosen a "title" patent policy, i.e. that of generally taking title to subject inventions. We do appreciate however, that ERDA has recognized the need for exceptions to this general rule by including waiver provisions. In addition to the complicated, indefinite and arbitrary waiver provisions as proposed, we strongly urge that there should be, at least on an optional basis, some provisions for permitting the contractor to retain irrevocable title to certain classes of invention, particularly those not directly aligned with ERDA's primary mission. This, of course, would be subject to an irrevocable, royalty-free license to the Government, for governmental purposes, and if necessary, even public rights, through ERDA, for energy related applications only.

What comes to mind in this regard are the old "Type C" and "Modified Type C" patent rights clauses frequently used by the AEC. These clauses permitted the contractor the sole right to license or exploit certain defined "outfield" inventions. In view of the even broader scope of ERDA's mission, as contrasted to the AEC's, ERDA's need therefor would appear to be even greater. Most certainly, many inventions will be made under ERDA contracts which are not directly related to energy. Practically all of these inventions will have useful applications in other than the energy field. As long as ERDA gets rights to these inventions for energy applications, with the right to convey these rights to responsible applicants, ERDA's object would be fulfilled. It would not be unreasonable on the other hand to permit the contractor to exploit the non-energy applications without all the uncertainties created by the proposed regulations.

enough and flexible enough to provide guidance in a wide variety of situations. However, too many detailed provisions in the implementing regulations can only result in difficult and protracted negotiations. The proposed regulations include many provisions which require negotiation, for example, possible Government rights to background patents or technical information, revocable or irrevocable licenses to United States and/or foreign foreground patents, Government rights to sublicense foreign governments, waivers as to identified or unidentified inventions, and many of these involve the preparation of reports and other documents by both ERDA and the contractor. Both policy and regulations should be made as uncomplicated and straightforward as possible on the basic issues of title to inventions, irrevocable minimum rights to the contractor under foreground patents, and the maximum rights to be granted to the Government under background patents and data.

(3) A tax problem. A potential problem for the contractor is the possible adverse effect of Government rights in background patents or technical data on certain Federal tax aspects of the contractor's future transfer or exclusive licensing of such patents or data. Under the Internal Revenue Code, in order for the contractor to transfer such patents or data in a tax free exchange or to obtain capital gains tax treatment on the income from sale or exclusive licensing, the contractor must be able to transfer or sell or license "all substantial rights" in the patents or data. In view of the various types of rights which the Government can obtain under the contractor's U.S. and/or foreign background patent rights and data, questions can be expected to arise as to which, if any, of such Government rights preclude the contractor from transferring all substantial rights. This potential problem under any background patent or data clauses could be eliminated by specific provision in policy and/or implementing regulations that the maximum rights obtainable by the Government under background patents and data would not prevent a future transfer of all substantial rights therein.

We appreciate your providing this opportunity for us to bring our comments to your attention.

Very truly yours,

HMH:cmm

cc Messrs. K. L. Cage
T. I. O'Brien
C. E. Winters

TRW would be pleased to go into these matters in detail at your convenience. In general, we think the proposed regulations represent progress toward a reasonable patent and data policy but we also think that they can be improved along the lines indicated above to facilitate greater cooperation between industry and ERDA in the energy program.

Very truly yours,

Daniel T. Anderson

Daniel T. Anderson
Patent Counsel

2. We also think that the regulations should lay greater stress on the granting of advance waivers at the inception of collaboration between industry and ERDA in a particular area of technology. The regulations should call upon ERDA's program administrators to specify in RFP's, in as precise and specific a fashion as possible, ERDA's position with respect to the allocation among ERDA, the contractor and third parties of rights to patents and data covered by the RFP. Under the regulations, contractors should be encouraged and permitted in the great majority of cases to negotiate advance waivers under which they would reacquire primary control over patents and data which are directly related to their demonstrated commercial capabilities and markets.

   In summary, we believe that ERDA is more likely to obtain the requisite measure of technical cooperation from private industry if the regulations contained a more explicitly articulated commitment by ERDA to a liberal advance waiver policy.

Proprietary Background Technology

Any requirement by ERDA that contractors license pre-existing background patents and data to third parties will tend to diminish the incentive of prospective contractors to participate in ERDA's programs. The "chilling effect" of such requirements which was commented on at the hearings is likely to be most pronounced on those contractors who have the strongest background rights, know-how and capability - i.e. those firms whose cooperation ERDA needs most.

The proposed regulations dealing with background patents and data represent a considerable liberalization over the AEC regulations previously adopted by ERDA. Our comments relate largely to how those regulations will be administered. We think it is vitally

adopted by Congress and by ERDA in this area may prove to be of crucial significance to the success or failure of ERDA's efforts to foster the rapid development and widespread commercial utilization of improved ways of solving the nation's energy problems.

Mandatory Licensing

We endorse the view which was repeatedly expressed at the hearings by industry spokesmen and others that mandatory licensing of energy-related patents is unnecessary and would represent a major obstacle to participation by private industry in the national energy program.

Ownership of Subject Inventions

Under its 1974 enabling legislation, ERDA will acquire title to all energy-related inventions which are conceived or first reduced to practice under ERDA contracts ("subject inventions"). Industry spokesmen have repeatedly warned that acquisition by the government of title to energy-related inventions will discourage invention under government contracts and, more importantly, discourage those contractors who possess the most valuable proprietary technology from participating in government programs which involve work in areas relating to that technology.

We believe that ERDA must provide very powerful incentives for private industry to develop and commercialize the technology which will be the subject of governmental energy R&D projects. Various statements which have been made by ERDA officials, including the policies enunciated in the proposed regulations, offer industry hope that ERDA will liberally grant waivers of rights to subject inventions. Nevertheless, it is evident from the views which were expressed by many of the participants in the hearings that industry continues to harbor concerns regarding the way in which ERDA's waiver policy will be administered.

Eliminate to the extent possible the wide differences in treatment of a particular university doing similar work for different agencies;

Create an incentive for prompt reporting;

Promote the expeditious commercial utilization of the inventive results of university research; and

Reduce the administrative burden on all the parties involved.

However, the agency should reserve the right to exempt specific grants and contracts at the time they are awarded from the operation of the Agreement, since there may be instances where exclusions from the normal policy are warranted as being in the public interest. Examples of this might include a contract for operating a Government-owned facility or an award involving extensive development work on a specific product or process that could be of major economic significance. Such reservation further supports the Subcommittee's conclusion as reflected on pages 2 and 3, supra, that its recommendation is consistent with section 1(a) of the President's Statement on Patent Policy.

Further, the Subcommittee recommends that the IPA's be entered into for designated periods of time, at the end of which the University will be required to report on its progress. Renewal of the IPA by the Government for additional periods should only be made if the Government is satisfied with the university's performance. In addition, the length of such periods can be made dependent on the capability of the university.

IPA's should be extended to universities only after Government review of the adequacy of their technology transfer capability. The Subcommittee concluded that public interest is better served by a deferred allocation policy in situations where the university has not initiated a technology transfer program."

regard for tomorrow -- I would have grave difficulty in understanding how even the loudest clamor for such an approach could enlist the attention or support of such a group as this, or indeed of any thoughtful citizen.

I think we can all agree that a public raid on a bake shop might satisfy the immediate hunger of those directly involved. But if that were the norm, and sanctioned by law, who would become a baker? Who would supply the bread we all will need tomorrow? This is that kind of an issue.

No, I don't find in "consumerism" -- however the term is used -- any reason to support or adopt compulsory licensing.

- Other "Remedies"

Let it be remembered too -- as these questions of public interest keep recurring -- that we always have available other means than compulsory licensing to protect the public interest in special cases, if the need should ever arise. The equity power of the courts to withhold injunctive relief, for example, was invoked in Milwaukee v. Activated Sludge. There is the right of eminent domain. And there is the powerful force of public opinion.

Conclusion

As I have said, I believe our patent system is sound in principle, and morally right. I believe that compulsory licensing is unsound in principle, and morally wrong.

I believe that our patent system promotes technological progress, and that compulsory licensing would retard it.

I am, and have been, opposed to compulsory licensing. The Department of Commerce is, and has been opposed to it, too.

Nowadays, as I have indicated, there seems to be mounting pressure on the part of some - mostly outside our profession - to change our law so as to embrace compulsory licensing. There seems also to be a growing disposition - on the part of some within our profession - to make some concessions in that direction -- not so much as a matter of principle, but on the grounds of expediency. The general thought seems to be that it's better to be flexible and bend a little, than to be rigid and break; that by coming up with some reasonable proposal of our own, we can perhaps head off having a worse one imposed upon us.

Of course, suppression is only one of the arguments advanced in favor of compulsory licensing. For the most part, other arguments are based, in one way or another, on the general notion that it would be in the "public interest" -- whatever that may mean.

- "High Prices"

I suspect that one of the ideas this involves is that the patentee's exclusive right permits him to charge prices that are "too high." (Do you remember the recent American Photocopy decision based on this concept -- holding that "excessive" royalty rates amounted to an anti-trust violation?) I must confess that I see very little merit in this approach.

In the first place, this is still a free country, with a free market. No one is compelled to buy at a price he is unwilling to pay.

Who is to say what's too high a price, unless it be the public? And if the asking price is in fact more than the traffic will bear, who is hurt but the patentee who is so unwise as to price himself out of the market?

What is more, it should not be overlooked, in all of this, that this question arises only in terms of what is new and patented. Suppose we did have compulsory licensing, and that as a result of its negative influence, we did not have the invention covered by a patent. We would certainly, then, have no problem of price to concern us at all! But that kind of solution has little appeal. It seems rather like chopping off one's head to cure a headache.

After all, it does require a strong profit incentive to justify expensive and risky research. If it is to continue, the profit return on the inventions which are successful must carry the losses on those that fail.

No, I don't think that talk about "profiteering" can make out a case for compulsory licensing.

- The "Special" Case of Drugs

How about the allegedly special needs and problems in the field of public health, as another aspect of the "public interest" approach? Compulsory licensing has often been vigorously proposed with respect to drugs, for example, in the name of the "public interest."

product or a new process, his competitor is under pressure to come up with another, and still better, invention. This is what the late Judge Evans of the Seventh Circuit Court of Appeals has called "the patent system working at its best."

With a broad system of compulsory licensing in force, that compulsion would no longer obtain. If a man patented an invention which his competitor wanted to use, that competitor wouldn't have to invent something better; he would, instead merely apply for a license. Competitive research would suffer; and technological progress would suffer. For many would be content to simply sit back and wait for others to make inventions, which they could then use for the asking. And in the end, of course, the public would suffer, if the philosophy and intent so clearly set forth in our Constitution were frustrated in this way.

The hopes and the ambitions stirred by the prospect of an exclusive right are what make the patent system work. This is exactly what Abraham Lincoln meant when he said that our patent system "added the fuel of interest to the fire of genius." Here again, the insights of Dr. Wilson are right to the point:

> "Whoever first conceived the notion of granting an inventor a limited monopoly in return for public disclosure of his invention had a brilliant idea, because it takes advantage of the fact that every inventor tends to over-value his own invention; and no reasonable cash sum would encourage him as much as the thought of being able to control his own invention for 17 years.
>
> "Furthermore," he said, "it is difficult to think of a fairer method of reward, because its magnitude is largely dependent on how important his invention turns out to be and on his intelligence in handling his patent."

It seems clear beyond question, to me, that compulsory licensing would impair, and largely destroy, that kind of incentive.

Critical Fields of Technology

Some have proposed that we have some form of compulsory licensing in particular and selected fields of technology. If we did, it would seem logical to me to apply it only to the fields in which the need for technological progress is least critical -- and not to the fields where such progress is most important.

On this basis it is sometimes argued that since they are seldom invoked, compulsory licensing laws have little practical effect. Their presence on the books is said to have an overall effect which is not harmful, and perhaps even salutary.

Even where compulsory licensing laws are seldom or never invoked, however, it is reasonable to assume that their presence nevertheless has some significant impact on the patent system. For undoubtedly, in many such cases, patent owners negotiate licenses that they would otherwise refuse, since they have no choice but to recognize the threat of a compulsory license hanging over them. And this decreases the value of the patent.

Whatever the factors that may account for the practices of other nations, I think we must consider the issue in terms of our own situation in the world economic community.

Despite the technological resurgence of Japan and Western Europe, we still hold a position of leadership in science and technology. And we obtain greater benefits from having a strong patent system than countries which are largely dependent on others for new technology -- for example, Canada, where most patent applications are filed from abroad.

Even apare from this difference in our situation, however, there is still no reason for us to believe that other countries understand better than we do the nature and effectiveness of the patent incentive. Their broad compulsory licensing laws may be a mistake. In fact, I have heard that there is some sentiment in the United Kingdom for changing the compulsory licensing statute.

Clearly, we should not simply imitate the practice of other countries, but should consider how compulsory licensing would affect the incentives provided by our own patent system.

Royalties

One of the greatest problems with compulsory licensing is coming up with criteria for setting the amount of royalties. Conceivably, objections to compulsory licensing might not be so great if some way could be found to guarantee to the patent owner the same financial benefit he would have enjoyed on an exclusive basis. It seems to me, however, that this approaches the impossible.

Dr. Robert E. Wilson -- for many years Chairman of Standard Oil Company (Indiana) and later a member of the Atomic Energy Commission -- once had this to say about compulsory licensing:

Importance of Patent Incentives

What do I think about compulsory licensing? Simply this, in brief: I am opposed to any type of compulsory licensing which would dilute the incentives for invention, innovation and investment provided by the patent system.

I take this view because, as I have said many times recently, I think that our patent system, as it stands, is sound in principle, morally right and very important. It lies at the very foundation of our entire economic and industrial structure. It is largely responsible for the prosperity we have known in this country.

It is probably more important now than ever before -- because we need today, more than ever before, the incentives that the patent system provides -- to speed up our technological progress, increase our productivity, strengthen our economy, and improve our world trade position and international competitive muscle. And we need it to help us solve critical problems affecting the health, safety and welfare of our people.

Importance of Exclusivity

The Constitution itself empowers Congress to grant exclusive rights "to promote the progress of the useful arts, by securing . . . to inventors the exclusive right to their . . . discoveries."

What compulsory licensing amounts to, of course, is elimination of the exclusivity which the present patent grant affords.

It precludes the patentee's option to practice his invention on an exclusive basis. It not only permits its use by others; it also sets the terms of license on a basis beyond the control or consent of the patentee.

There is thus a substantial loss of the incentive to invent, and to invest and risk the money and effort essential to the commercialization of new ideas.

To bring about industrial progress, such incentives are needed -- they are in fact, indispensable -- for by definition, incentive is what makes men want to work, to risk, and to do whatever else is needed to get ahead.

Compulsory Licensing Abroad

Yet there are those who favor compulsory licensing. One

CONSTITUTIONAL CONSIDERATIONS

We also question the constitutional validity of compulsory licensing. Although the Congress may limit the term of the patent grant, or decline to exercise its powers to promote the progress of science and useful arts, it may not dilute "the exclusive rights" during the pendency of the patent. Further the Fifth Amendment provides that a person may not be deprived of property without due process of law. Many compulsory licensing proposals are based upon a forced taking for the benefit of private parties of vested property rights. This taking for private enrichment cannot be equated to a taking for eminent domain purposes. Finally, any compulsory licensing measure restricted to certain industries would deprive those in that industry of equal protection under the law in the taking of private property for private use.

CONCLUSION

For the reasons stated above, PMA recommends that ERDA, in its report to the President, not support statutory compulsory licensing for energy related patents. Statutory compulsory licensing is inappropriate in the United States as either a general proposition or for specific areas of technology. In our view one of the concerns of the legislature in enacting the 1974 Nonnuclear Energy Research and Development Act was the possibility that a privately developed major innovation in the energy field would be patented and restricted from optimum utilization by the patentee or his voluntary licensees to the detriment of the public. If such a situation should arise, and we doubt that it will, any abuses of the patent grant or any detriment to the public interest can be promptly remedied through the judicial system. Certainly, the research incentives provided by the United States patent system should not be eliminated in order to guard against the possibility of later abuse. To do so could well result in the failure to generate the innovative technology through private research which is necessary to meet this nation's needs.

We appreciate the opportunity given to provide comments on this very important subject.

Respectfully submitted,

C. Joseph Stetler

C. Joseph Stetler

Enclosure

SUPPRESSION OF PATENTED TECHNOLOGY

The portion of the Conference Report discussing the study to be prepared by ERDA for the President indicates that the ERDA report should contain empirical data and should analyze the effect on research and development activity of existing legislative and judicial mandatory licensing provisions. One of the reasons proferred in support of the need for statutory compulsory licensing is that the patent system has resulted in "suppression" of great advances in the arts. Thus if compulsory licensing were provided for in the United States, many patented inventions would be commercialized to the benefit of the public. To our knowledge no empirical data exists to demonstrate that "suppression" has in fact occurred. It is extremely improbable that there has been any such suppression since the teachings of the patent are publicly known at the time the patent is issued and any party can commercialize the patented subject matter at the time of patent expiration. Those who allege suppression should be required to offer some specific instances. Compulsory licensing requirements can only result in a greater threat of suppression since, by eliminating the exclusive nature of the patent grant, innovators would consider the possibility of trade secret protection rather than patent protection.

FOREIGN EXPERIENCE

An additional argument offered by those favoring compulsory licensing in the United States is that it is desirable to conform our patent laws with those of the great majority of foreign countries. The patent laws of many countries, both developed and developing, do include provisions for compulsory licensing in identified instances. However, the United States is the most productive and innovative country in the world and we should not model our laws after those of less innovative countries. The best interests of United States citizens would be ill served if our laws on the right of free speech, privacy, labor-management relations, and many other areas, were modeled after foreign laws. Revising our patent laws to conform to the laws of other countries simply invites the stifling of technological progress. The only predictable result would be that this country will recede to the innovate levels of those we imitate.

Statutory compulsory licensing in foreign countries is designed principally to minimize foreign exploitation of the domestic patent system. Many foreign countries do provide that the patent must be licensed after a certain number of years if the invention is being "abused" and is not being practiced locally, that is in the event of non-working. It must be noted, however, that only in the United States and Japan are more patents granted to nationals than to foreign interests. In Canada, 95% of the patents are granted to foreigners, in the United Kingdom, 75%. This contrasts to the United States where fewer than 30% of the patents are granted to foreigners. For this reason alone, the experience and statutory requirements for compulsory licensing in foreign countries are simply not pertinent to the U.S. patent system.

patent owner to forego the injunctive remedy provided by Title 35 of U.S. Code against the infringement acts of another." Compulsory patent licensing in many instances is essentially a taking, by statute, of the vested property rights of one private party to the enrichment of another private party. In the past several years there have been federal bills introduced to provide for the compulsory licensing of pharmaceutical patents. In this Congress, S. 1312 (Senator Nelson), H.R. 855 (Representative Price), H.R. 1003 and H.R. 1004 (Representative Rosenthal) and H.R. 3988 (Representative Oberstar) are directed toward compulsory licensing of pharmaceutical patents. These bills, if enacted, would curtail patent protection for pharmaceuticals rather than merely cause the foregoing of injunctive remedies. S. 814 (Senator Hart) is a pending general compulsory licensing measure which would also severely limit effective patent protection in many areas of technology.

CURRENT FEDERAL LAW

To a very limited extent, mandatory licensing currently exists in federal law. 42 U.S.C. 1857 (h) (6) provides for mandatory licensing of patented technology to an applicant, if that applicant can establish an inability to meet federal clean air standards without access, by a forced license, to the patented subject matter. This provision was enacted without the benefit of a Congressional hearing and was strongly opposed by the United States Department of Commerce. It is extremely doubtful that this section of the Clean Air Act will ever be invoked since a patent holder would undoubtly recognize, whether or not there was a statute, that the federal courts would not enjoin a party from utilizing essential patented technology, upon payment of a reasonable royalty, if in fact it has been clearly established that access to that technology is necessary to meet federal pollution standards. The statute is of no practical value in achieving a pollution free environment. We urge that ERDA not recommend a similar measure in the energy field.

The 1954 Atomic Energy Act provides that a person may apply for a non-exclusive patent license which may be granted by the AEC to the extent that the use of an invention is of primary importance to the conduct of AEC-authorized activities. The license applicant must show the extent to which failure to obtain such a license will prejudice the specifically approved AEC activities. This is essentially an eminent domain provision which was considered necessary at the time atomic energy was partially released to the private sector from strict government monopoly. The compulsory licensing provisions of the Atomic Energy Act are essentially the taking of private patent rights for government authorized use.

INCENTIVES OF THE U.S. PATENT SYSTEM

The study being undertaken by ERDA is to investigate the desirability of mandatory licensing to carry out the purpose of the 1974 Energy Act, which is the optimum commercial utilization of all efficient energy sources. It is the PMA's strong recommendation that the ERDA study not recommend compulsory

7. Reporting of Subcontractor Inventions - As to subcontracts, our members feel that there are two major problems:

(1) The contracting officer seemingly may in his discretion allow (or direct?) inventions of a subcontractor to be furnished to ERDA through a prime contractor. This is not a wise policy and subcontractors can be expected to seriously oppose it.

(2) A requirement that a prime contractor identify and report to ERDA all subject inventions of a subcontractor of which it acquires knowledge in the performance of a contract puts the contractor in an oftentimes embarrassing position and opens up potential for disagreement in an area which demands good working relationships. Misunderstandings or disagreements as to what constitutes a subject invention, the extent of material to be included in such a report and the like, are only two of the areas which could be expected to contribute to dissatisfaction from this clause. We submit that it is far better to allow, and in fact require, subcontractors to report subject inventions directly to the contracting officer.

8. Foreign Rights - The clause provides that ERDA may require licenses to be granted to "responsible applicants" (including competitors) in those instances where waivers may have been obtained, if the Administrator or his designee determines that "such foreign patent rights have tended to substantially lessen competition or to result in undue market concentration in any section of the United States in any line of commerce to which the technology relates." This is a serious determination in an area heretofore addressed by the courts or the Federal Trade Commission, and to relegate it to one or more people in ERDA is undesirable.

9. Waivers - The waiver provisions take up a considerable percentage of the total sum of the Patent Rights clause and are considered to be exceedingly complex, difficult to administer, and stacked against contractors. It is difficult to conceive how any Government employee would interpret these waiver criteria in favor of taking the responsibility and risk of granting a waiver to a contractor. The time to prepare requests for waiver, including all the diverse facts that might persuade Government personnel of the merits of a contractor's position, together with the time to process such a request against the time pressures which would

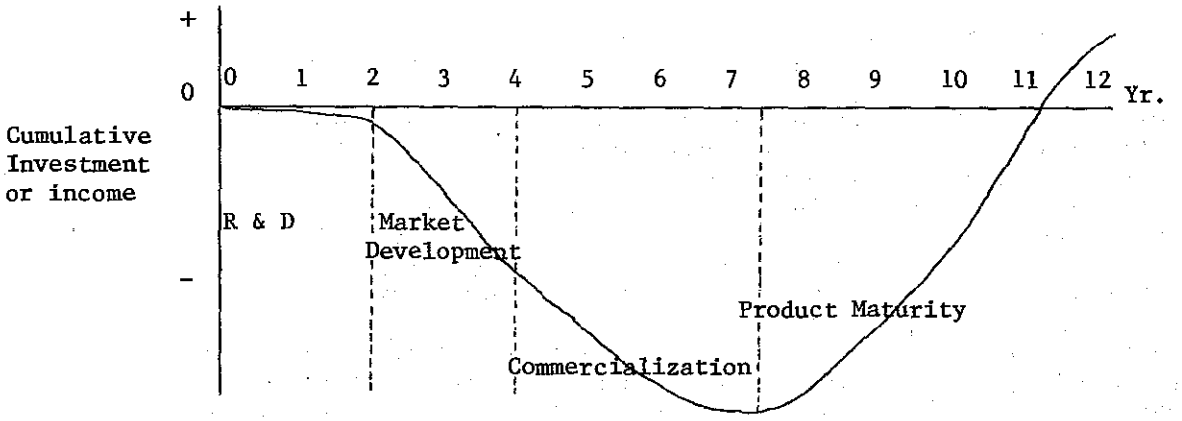
the fact that ERDA is perpetuating the Government-take-title philosophy which industry has objected to so strenuously over the years. We believe that studies and experience have shown that specific inventions developed under DoD contracts have not, because of their very nature, enjoyed ready adaptability to the market place -- and thus patent rights have been less than critical. However, as ERDA moves into supporting the development of inventions in areas more directly related to Everyman's standard of living, patent rights as incentives to draw forth creativity, and to substantiate the investment of further money and technology to adapt and market the inventions, will be severely restrained by the proposed regulations. This of course is contrary to the intent of the Government and will constitute a severe disincentive in both of these important areas. It is appropriate to remind ourselves that patent rights support risk investments which result in jobs for people, and taxes for the Government. However, these investments will not be made in large measure if the Government attempts to license the inventions since supporting technology and enthusiasm of the inventor and his colleagues will not be available as they would with a private company's product or licensing program. Historically, the Government's increasing portfolio (now consisting of thousands of patents) has not been greatly utilized as a base for new products. Also, allowing contractors to retain title has not resulted in a concentration of economic power. This will be especially true with ERDA contracts because its primes will be diverse and the subcontractors with whom they must deal will be from a broad base of industry. To those who would cry "subsidy" if the Government allows title to be retained by the inventing company, we believe that the response is the Government could not pick a more crucial and important area in which to utilize subsidies as an incentive. We believe it much more important to subsidize creativity and product development than many other areas in which subsidies have proliferated. It would seem important to recognize that the Government would receive possibly 50 percent of profits from industrial utilization of inventions if title were retained by industry and would realize only around 2 to 3 percent of sales if it attempted to grant royalty-bearing licenses in spite of the above-mentioned obstacles.

3. Background Patent Rights - You are aware that this has been a sore point with industry for years. We believe it to be inequitable for the Government to obtain, at no

commitment and one whose direction is not easy to change. If Olin were to involve its R & D group in an ERDA program, it would have to be either one close to its present business or one where it could see a long term growth opportunity.

In either case commercial development of the outcome of the research would be the primary motivating force not a research grant. What ERDA funds can do is reduce the potential penalty of undertaking work in areas with low probability of success.

The real reward, derived from R & D, is not the knowledge or patents gained, but a chance to commercialize a new product or process, or improvements of existing ones. The diagram below shows a concept of the financial commitment involved in various stages of development of a new industrial product.



It indicates that R & D is only a part of the commitment required if a product is to reach the marketplace. Continued investment must be made in market development, construction of manufacturing facilities and building of a customer service organization. It may be more than ten years before such expenditures are recovered, without allowance for return on investment. Judicious management practice dictates that before we undertake such a commitment we obtain the protection offered by patents.

The reluctance to become involved in these efforts is increased by the proposed policy on background patents. As suggested earlier, the areas in which Olin would have most interest are those closest to its area of expertise. Since it holds patents, which support its existing business, in these areas, forced licensing of background patents could prohibit its involvement in such activities.

For the same reason we view the concept of mandatory licensing with alarm. The patents we hold were obtained by us at great expense and are the foundation for a large investment. Further, we have an active licensing program through which we obtain access to patents of others and permit limited use of our patents. It is our opinion that there are few, if any, ideas of commercial value which are not being developed because of patent interference There is, therefore, no need for mandatory licensing legislation.

I am particularly concerned with part 9-9.107-5 (f), *Publication*, of the Proposed Policy and Procedures which were printed in the Federal Register, October 15, 1975. This paragraph requires that any publication of scientific or technological achievement made under a contract or grant from ERDA would have to receive prior approval by the ERDA patent counsel. To restrict a university faculty member from publishing his scholarly works is contrary to university policy of free and open dissemination of knowledge. I trust that a way will be found to eliminate this restraint on the faculty member.

I enjoyed meeting with you last week and I look forward to a continued association with you.

Sincerely,

Rolin F. Barrett

Rolin F. Barrett
Assistant Dean

RFB:mg

National League of Cities

The National Action Arm of the Nation's Cities

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Washington, D. C.
20006
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November 17, 1975

Dr. Robert C. Seamens, Jr.
Administrator
U.S. Energy Research and
Development Administration
Washington, D. C. 20545

Dear Dr. Seamens:

I understand the Energy Research and Development Administration is to hold hearings on the subject of the patent process on November 18 and 19, 1975. Although the National League of Cities holds no official position on this subject due to the specificity of its nature, one of our membership, the City of Milwaukee, has expressed strong interest in the matter and has asked that we have submitted to the hearing record the Milwaukee Common Council resolution relative to mandatory licensing of patent rights.

We would greatly appreciate your complying with the City's request by including the enclosed resolution in the record. We would also appreciate receiving a copy of the record once it is compiled in its final form. Thank you very much for your attentiveness in this matter.

Sincerely,

Alan Beals

Alan Beals
Executive Vice President

Enclosure

cc Richard W. Glaman, Assistant Director
Department of Intergovernmental Liaison
City of Milwaukee

is stymied and the public suffers. Undoubtedly, an ERDA mandatory licensing policy will limit the number of companies willing to make commitments in energy research and development.

A showing of the need for mandatory licensing does not exist. Although several present Federal statutes have such provisions in specific technical areas, mandatory licenses have seldom been requested, presumably because there is no real need. On the other hand, the mere presence of these laws on the books has had a significant adverse impact on the incentives provided by the patent system.

Protection of the public interest has been suggested as the justification for mandatory licensing. Such concern is unnecessary. The judiciary has been active in protecting the public welfare and interest in appropriate cases. Also, mandatory licensing of patents has been ordered in antitrust cases where it is necessary to reestablish competition. Rather than have a mandatory licensing law to allay the intellectual fears and fantasies of a few, reliance should be placed on the Federal Judiciary to exercise its broad discretionary powers in those few instances where it might be justified.

The proposed patent regulations of ERDA contain mandatory licensing provisions of varying scope. For example, in paragraph (c)(4)(iv) of the Patent Rights Clause, Sec. 9-9.107-5, the contractor obtaining foreign patents at his own expense may have to license others under certain conditions; in paragraph (k) of the Patent Rights Clause, Sec. 9-9.107-5, the contractor must agree to license the Government as well as any other responsible parties under background patents of the contractor in certain situations; in paragraphs (i)(9) and (11) of Sec. 9-9.109-6, a contractor receiving patent rights under a waiver must agree to license others in certain instances; and in paragraphs (e)(4) and (5) of Sec. 9-9.202-3, the Government and other parties may be granted rights to the background proprietary data of the contractor.

The massive Government-sponsored research conducted under the Rubber Act of 1948 provides a lesson that we have been too quick to forget. At the conclusion of that program, Professor Robert A. Solo, among others, was commissioned by the Subcommittee on Patents, Trademarks, and Copyrights of the Senate Judiciary Committee to appraise the results of the program. The report was published in 1959 under the title, "Synthetic Rubber: A Case Study in Technological Development Under Government Direction."

The Solo report concluded that the Government funds expended had resulted in a net loss because it deterred private incentive. He found that the only significant research advances during the period of Government involvement came from those companies which operated outside of the program.

The point of these background statements is that I believe the patent policy currently proposed by the ERDA will work the same results in deterring private incentive as did the Rubber Act of 1948. No reasonable person can argue that the Government should not get full return for every dollar it spends on research, but the proposed policy goes far beyond that in securing rights "in the public interest" of such broad, yet vague scope that in my opinion anyone who has substantial background technology and who intends to conduct private research concurrently with Government-sponsored research in even remotely similar fields is risking the loss of his private intellectual property rights by accepting any Government research funds. If I am right, then the Government ultimately will either get the lesser qualified to conduct its research or those qualified researchers who do accept Government funds will avoid spending any private funds in the particular field, leaving the Government with the burden of financing all research conducted. Neither result is in the public interest.

The proposed provisions with respect to leaving foreign or domestic rights with the contractor (which rights can later be rescinded) and the provision with respect to the licensing of background patents, trade secrets or

with substantial experience in the field to participate in a government-sponsored energy research project. In short, those companies with the greatest capability to participate in research sponsored by ERDA would be discouraged from doing so.

No practical need has been shown for mandatory licensing provisions. Present government patent policy provides ample safeguards to ensure that the product of government-sponsored research becomes available to the public without, at the same time, jeopardizing the contractor's privately funded work that qualified him as a desirable participant in the first place.

Subsection 113(c) of S. 1283 (93rd Congress), as passed by the Senate (but removed from the bill in conference), would have authorized the ERDA Administrator to require anyone, including a nonparticipant in joint government-industry research products, to license his patents covering energy-related technology. It is our view that such confiscation of rights would defeat the intended purpose of the constitutional provision for a patent system. It would, we believe, deter private industry from investing capital in energy research and be counter-productive to the basic objectives of energy research legislation.

We appreciate the opportunity to present these views and request that they be considered by the interagency task force assigned to study the Federal patent policies affecting ERDA's programs.

Sincerely,

W. J. Driver

in energy research. To this end, a patent policy which would provide a flexible approach to the ownership of patents developed under government research contracts would be highly desirable. In like manner, this patent policy should permit the Administrator to grant exclusive or partially exclusive licenses in energy inventions to which title is vested in the United States under reasonable conditions.

Section 9(c) of the Federal Nonnuclear Energy Research and Development Act of 1974 (P.L. 93-577) authorizes the Administrator to waive "all or any part of the rights of the United States with respect to any invention or class of inventions made or which may be made by any person or class of persons in the course of or under any contract of the Administration if he determines that the interests of the United States and the general public will best be served by such waiver." We wholeheartedly support this provision as an example of the type of incentive that is necessary to attract the participation of companies with substantial qualifications to perform energy research work.

In order to permit more flexibility with respect to the ownership of patents growing out of government-sponsored research and the licensing of government patents, we believe that certain changes in section 9 of the Federal Nonnuclear Energy Research and Development Act of 1974 are desirable.

Subsection 9(d)(10) requires the Administrator to consider, in determining whether a waiver to the contractor at the time of contracting will best serve the interests of the United States and the general public, "the likely effect of the waiver on competition and market concentration."

Subsection 9(g)(2), which permits the Administrator to grant exclusive or partially exclusive licenses in an invention to which title is vested in the United States, provides that "the Administrator shall not grant such exclusive or partially exclusive license if he determines that the grant of such license will tend substantially to lessen competition or result in undue concentration in any section of the country in any line of commerce to which the technology to be licensed relates."

In our opinion these determinations under subsections 9(d)(10) and 9(g)(2) would be difficult to arrive at, would be burdensome and time-consuming to the Administrator, and would complicate and delay the waiver of patent rights or the granting of licenses.

Mr. Kenneth L. Cage
Office of the General Counsel
U.S. Energy Research and Development
Administration

not be commercialized. It is therefore urged that legislation requiring mandatory licensing of energy-related patents is not needed to carry out the purposes of the Federal Nonnuclear Energy Research and Development Act of 1974.

Sincerely yours,

Edwin T. Yates

Edwin T. Yates, Ph.D.
Patent Management Officer

ETY:py

Footnotes

1. Jeffry C. Gerber and Peter W. Kitson, "Compulsory Licensing of Patents Under the Clean Air Act of 1970", Environmental Law, Spring 1973, pp. 49-52.

2. Ibid. pp. 35, 36.

3. Government Patent Policy, Federal Register, Vol. 36, No. 166, August 26, 1971, p. 16887.

4. Disposition of Rights in Inventions in National Science Foundation Contracts, Federal Register, Vol. 39, No. 234, December 4, 1974.

5. "President Signs Energy Reorganization Bill", Congressional Quarterly Weekly Report, October 19, 1974, p. 2925.

6. "Council" refers to the proposed Council on Energy Research and Development for nonnuclear energy sources. It was to have been a part of the Executive Office of the President.

7. Hearings before the Subcommittee on the Environment of the Committee on Interior and Insular Affairs, on H.R. 6602 and related bills, House of Representatives, Ninety-third Congress, February 1, 1974, Y4. In 8/14:93-19.

8. Ibid. p. 459.

9. Ibid. p. 429.

10. Gerber and Kitson, op. cit., p. 67.

Leg.Ref.Bur.
DU:gm
3/17/75

Debate over Mandatory Licensing

Mandatory licensing was a major item of debate at Committee hearings.[7] One of the major objections to mandatory licensing was that it would undermine the patent system and the incentive for research. In a statement before a Congressional subcommittee, Betsy Ancker-Johnson, Ph.D., Assistant Secretary for Science and Technology, Department of Commerce, felt that mandatory licensing would be anticompetitive,

> "with the possibility that a firm wishing to participate in the energy field can merely wait and take advantage of its competitors' successful research and development activities, fewer firms are going to undertake an active R & D program with the risk and uncertainties involved. Without compulsory licensing, firms would recognize not only the desirability of being first with the development and marketing of new energy sources, they would also be encouraged to invent alternatives to compete with energy sources developed and patented by their competitors."[8]

Proponents, however, did not feel this was necessarily so. Thomas E. Kauper, Assistant Attorney General, Antitrust Division, Department of Justice, in a statement before the same subcommittee hearing, cited a letter from the Environmental Protection Agency in which the EPA found "no cutback in air pollution control research" as a result of section 308. Testifying on behalf of the Justice Department, Mr. Kauper further stated that a mandatory licensing provision similar to those in H.R. 11856 and H.R. 11857 is necessary, and without them "A private patent holder could interfere with the purposes and objectives of these proposed energy bills--which are the

this Act, as with other federally sponsored research and development efforts, is to stimulate private industry research in an area which is vital to the public interest. The need for government stimulation of private research is especially important in the area of energy conservation technology. Such technology only becomes useful when it can be manufactured at a cost which the general public can afford.

Section 9 of the Act deals with two types of patents. The first involves inventions arising from government sponsored research. Through federal contracts the Federal Nonnuclear Energy Research and Development Act of 1974 provides for the awarding of government contracts for the research and development of energy technology. While the rights to an invention, developed with the aid of funds from this Act, are considered United States property, the Administrator is permitted to waive all or part of the rights of the United States to such an invention. The Administrator's determination to waive such rights, thereby permitting the private research company to hold all or part of the patent rights, must be based on several objectives; two of which are 1) promoting commercial utilization of such inventions; and 2) fostering competition and preventing undue market concentration inconsistent with the antitrust laws.

The second type of patents dealt with are those arising from non-government sponsored research. Section 9(n) directs that a study be made of mandatory licensing:

> "Within twelve months after the date of the enactment of this Act [December 1974], the Administrator with the participation of the

court that: 1) use of the patent is necessary to meet auto emission standards set by the provisions of the Act; 2) the patent is not otherwise available to potential licensees; 3) no reasonable alternative means of achieving these reduced levels exist; and 4) to deny such licensing would promote a lessening of competition."[2] If these conditions existed the court could require mandatory licensing on reasonable terms. However, to date, it has not been necessary to resort to this mandatory licensing provision in the Clean Air Act due to the absence of complaints.

Recent Legislation Affecting Patents and Energy Conservation

Due to the complicated nature of patents, government policy is equally complex and designed to give federal officials the necessary discretion in dealing with individual circumstances. Both Presidential patent policy[3] and patent clauses[4] in government contracts allow federal officials discretion in negotiating what patent rights the contracting agency has and what patent rights the recipient of the contract may retain. There is no one specific patent policy of the federal government; it varies from department to department. However, since January 19, 1975, a new federal agency, the Energy Research Development Administration, has attempted to coordinate policy relative to energy technology development.

The United States recently undertook a major reorganization of governmental agencies to promote energy research and coordinate energy policy. The Energy Reorganization Act of 1974

injunction due to the possible adverse effect upon the public welfare if the injunction were granted. Two cases will serve as examples here. First, in City of Milwaukee v. Activated Sludge, Inc., 69 F.2d 577, (7th cir. 1934) the City infringed on particular patent rights for sewage purification (specifically the treatment of sewage by aeration). The Circuit Court of Appeals held that monetary relief should be granted but injunctive relief should not be granted. In the opinion of the Court,

> "...if, however, the injunction ordered by the trial court is made permanent in this case, it would close the sewage plant, leaving the entire community without any means for the disposal of raw sewage other than running it into Lake Michigan, thereby polluting its waters and endangering the health and lives of that and other adjoining communities...."

A second case, Vitamin Technologists v. Wisconsin Alumni Research Foundation 146 F.2d 941, (9th cir. 1944) involved a patented process for producing Vitamin D in dietary substances by exposing them to the ultra violet rays of the spectrum. Vitamin D is very important in reducing rickets in mammals and, in particular, human beings. Irradiation of oleomargarine is therefore highly desirable in that a large number of consumers of oleomargarine are "poor" and it is they who usually suffer from rickets. The court held that a license to use this irradiation process should not be denied to a manufacturer of oleomargarine. In part, the court held that,

> "It is now well established that a patentee may not put his property in the patent to a use contra to the public interest. The grant of a patent is the grant of a special privilege 'to promote

On the average, 22 months are required to grant a patent. Patents relating to energy conservation require only 6-8 months to gain approval. During this period of application the patent office reviews previous patents to make certain that the applicant's invention is novel. While the application is being considered the information contained in it is held confidential. If the application is approved and a patent is granted, then the process necessary to manufacture the invention becomes public information and can be purchased from the patent office for fifty cents. The patent specification must provide a description of the invention sufficient to teach a person skilled in the field of the invention to make and use it. However, know-how, trade secrets, or shortcuts necessary to produce an invention efficiently and at a competitive price can remain secret and do not necessarily have to be included in the patent application.

The patent office may refuse to grant a patent if the public disclosure of the invention might be detrimental to the national security. This determination is based on reports from the Atomic Energy Commission (which has now been abolished), the Defense Department, and any other department or agency designated by the President as a defense agency.

Patent Rights Versus "Public Interest"

The federal government has the means to prevent gross misuse of patent rights in instances where the rights granted to a patent holder would do great harm to the public welfare. Four means of governmental action are: 1) emiment domain; 2) refusing

mandatory licensing provision was included in Section 308 of the Clean Air Act of 1970 (Public Law 91-604). This Section provides that a patent holder could be required to license other responsible parties if the Attorney General certified to a United States District Court that the use of a particular patent is the only means available to meet auto emission standards set by the Act, and that to deny such licensing would lessen competition in this vital area. Upon certification that such conditions exist, the court could require mandatory licensing on reasonable terms. This mandatory licensing provision has not been used, however.

The City of Milwaukee recognizes that patents are an important part of this country's economy in that patent rights provide an inventor with an incentive to engage in research and development. However, due to the energy crisis and the consequent need for energy conserving inventions, the Common Council of the City of Milwaukee has gone on record (by means of resolution file number 74-2114) in support of mandatory licensing of patent rights as one option for making energy conservation technology available to the general public.

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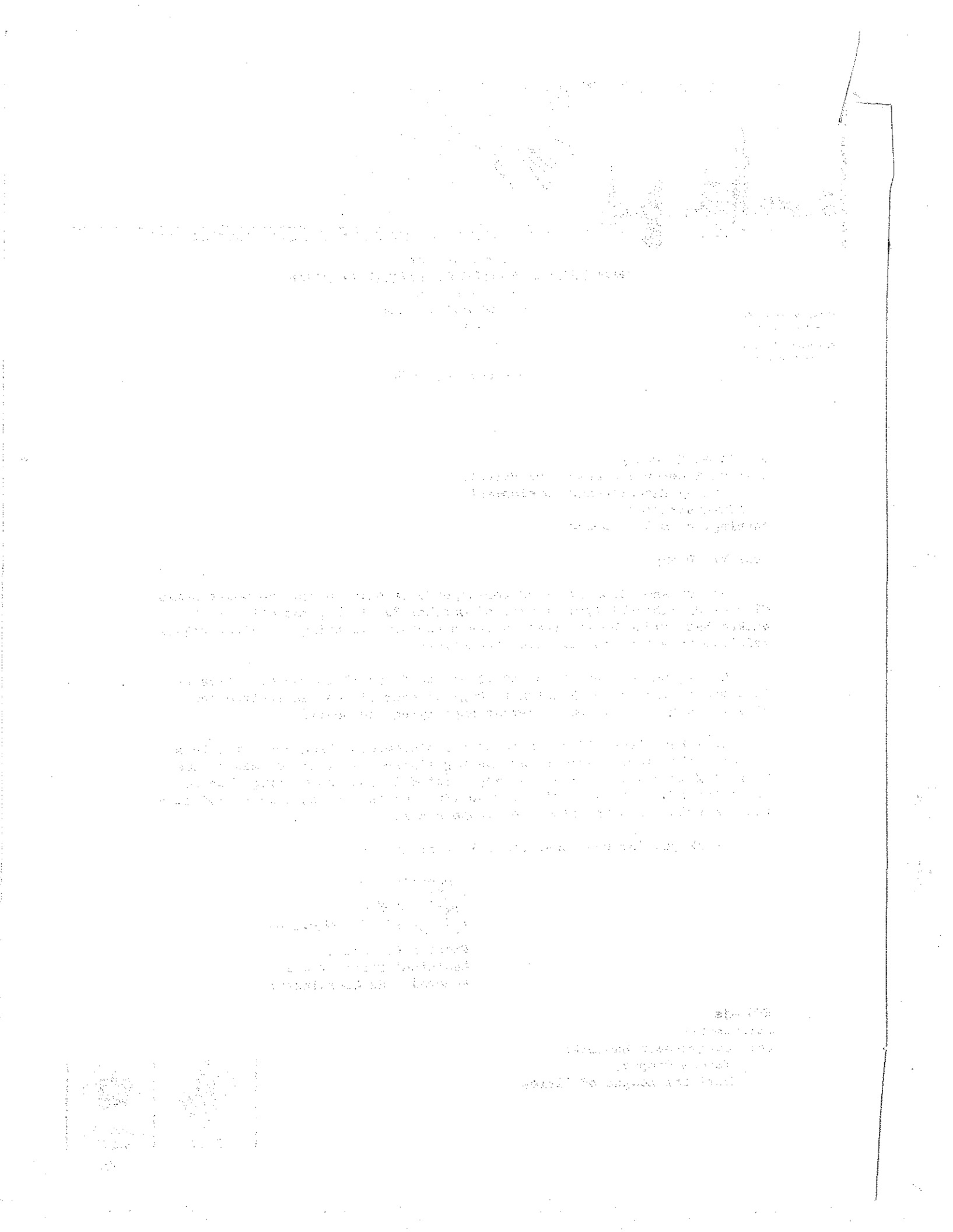

SCIENCE AND TECHNOLOGY
CALLS FOR ACTION --
PROJECT INDEPENDENCE 1980*

Like damming a river
Which threatens to overflow
Our energy problem growing bigger
Needs all efforts, all we know!

We must "pass the sand bags"
In jointly operated lines
We can't tolerate big lags
For these are unusual times!

We should take a global view
To meet head on our needs
To save U.S.A. for me and you --
Then get back to our greeds!

I say "let us have legislation"
To clear away the barriers
To cooperation within our nation
To free for action our knowledge carriers.

P. L. Gomory
12/16/74

P.S. *Seamans said even if we do "all these things" at 4% increase/yr. -- 18,000,000 bbls/day gap by 1985!

INDUSTRY COLLABORATION IN ENERGY R&D

Perspectives on the Regulatory Setting

WRITTEN DURING MEETING

December 16, 1974

nality and technology can do the job, in the pursuit of our own, let's say worthwhile and idealistic, ventures.

Patent Policy Provisions Are Critical

PAUL GOMORY: I have worked on a series of patent law revision bills with people in the Administration and on the Hill, none of which, so far, has been signed into law. Still more recently, I worked on the energy bills—S.1283, introduced by Senator Jackson, which passed the Senate last December 7th, and HR 13565, sponsored by Representative Udall, which has passed the House. These two bills have just been finished in conference.

The patent policy provision is in two sections, one of which determines what shall be the policy affecting a contractor's right to obtain an exclusive or partially exclusive license.

Now we've talked about politics here and we've talked about capital intensive industry, and we've talked about R&D. If I were an R&D director, I would want to know just what I would get out of it for my company and my stockholders before I would invest capital in R&D only to see my competitor put into business. The patent policy that was adopted was a Senate version, which was a modification of a Hart/Long amendment to the Jackson bill, S.1283. In my opinion, the provision which was adopted was extremely poor in terms of incentive to a would-be contractor to come forth to take a government contract, particularly where he would have to invest his own knowhow and his own trade secrets.

The House version which was offered was quite good, quite acceptable. However, in the Office of Management and Budget (OMB) we do not have people who understand what goes on inside the corporate structure when a contract is to be bid on. So in terms of what has been said here, which I have found most interesting, I offer a very specific comment. Find out about the patent policy provisions, and take action accordingly, and anyone who wants information on this can have it from me.

Now there is another thing that happened. There was a move, again on the part of the Senate, from Senator Hart's office, to introduce compulsory licensing of patents, technology including trade secrets, and so forth. The technology/trade secret part was defeated in the negotiations that went on among staff and at OMB and in the Commerce Dept. In the conference, the House conferees were split four to four as to whether there should be mandatory licensing of patents. The Senate conferees agreed to a provision which would establish a 12-month study period. Yea or nay, will we have compulsory licensing of patents? Anybody's patents? Your patents?

You can go commit your funds to research and development and come up with a patent only to find that your competitor who has a contract with the government, or who is about to demonstrate something, or make it commercial needs a right under your patent. And then you are relegated to the courts to fight for what the court will say, after five or ten years of litigation, is a reasonable royalty. Now this is a very specific problem, because all of what we would like to do, in terms of invention and innovation with respect to energy, hinges on the patent policy provision, wherever R&D, or invention and innovation are concerned.

We Can Be Helpful

B. KATZEN: A little over two years ago I was asked by a chemical engineer, who is a member of AIChE, and who heads up the Cincinnati Air Pollution Board, to become a member of the Air Pollution Advisory Board of our city. I advised him that if I did I would certainly be accused eventually of conflict of interest, because I would be, for the most part, industry's advocate.

Well, he went back to the mayor and the City Council, and nevertheless, I was invited to serve. I've been on the Board two years out of a seven year term, and they haven't fired me yet.

The open and direct approach is the answer, because I have been in an adversary position with a lawyer on the Board, which also has a chemist and a public member on it. Through open discussion I believe I was influential in keeping the City Council from passing an ordinance that went far beyond the federal and state regulations and, in turn, our efforts convinced the state not to go overboard.

So we can be helpful, we can be in an adversary position in a constructive way, but we must identify ourselves openly. Also, we must not be one-sided. We must be fair.

PAUL LOUIS GOMORY
5609 OGDEN ROAD, WASHINGTON, D.C. 20016

January 22, 1974

Mr. Kenneth R. Cole
Director, Domestic Council
White House
Washington, D. C. 20500

Paul L. Gomory
Suite 307
1775 K Street, N.W.
Washington, D.C. 20006

RE: ENERGY

Dear Mr. Cole:

I am enclosing a copy of a letter and attachment which I have today addressed to each member of the Senate Finance Committee and the House Interior Committee.

S.1283 - Jackson, as you know, was passed by the Senate 82 to 0 on December 7. S.2806 - Gravel will have hearings beginning January 23 - January 25 and January 28, January 29 before the Energy Subcommittee of the Senate Finance Committee.

There are in both of these bills, unfortunately, Patent Policy and Mandatory Licensing provisions which work to defeat the purposes of the bill, however laudable.

It has been the stated policy of the White House as expressed by Mr. Richardson when he was head of HEW and dealing with the National Clean Air Amendments Act of 1970, and also as in correspondence with your Mr. John Whittaker, that compulsory patent licensing provisions are inimical to invention and innovation - so sorely needed at this time!

My enclosed letter and the article explain the viewpoint which I think resonates with that of the White House.

I suggest steps be taken immediately to make known the White House views to the proper persons in the Congress.

No doubt you are aware that even government patents had been offered for exclusive license because inventions open to all of the public do not attract investment capital, i.e., time, funds and energy, for their commercialization or production. I am aware that there is a recent court decision holding that such licenses have been granted as a result of an improper procedure. However, I am sure that this is a temporary setback only.

Thank you for your kind attention to this letter.

Very truly yours,

Paul L. Gomory

Paul L. Gomory

PLG:mm

P.S. This letter would be grossly incomplete if I did not compliment you and your associates on the tremendous job you are doing helping Mr. Nixon to carry on as I believe he should do!

95.

> "...we consider that the six months' study and report provision of section 7 of H.R. 13565, as amended, presents a reasonable, intelligent and forward looking solution. the provision of six months' study by the Administrator of ERDA of the patent policy problem policy for ERDA without such study and report would be most unwise."

Finally, I would urge the conferees to adopt the study provision of H.R. 13565, section 7, which was passed by the House with a strong vote.

As an alternative provision which provides immediate guidance and which also provides for public hearings favored by the Bar, I suggest that the provision endorsed by former Commissioner of Patents, Edward J. Brenner. It reads,

"INTELLECTUAL PROPERTY"

> "'Subject to the President's Memorandum of August 23, 1971, the Administrator shall hold on-the-record public hearings to receive suggestions or proposals for regulations applicable to intellectual property rights affected by his operation. Upon consideration of such suggestions or proposals the Administrator shall then publish final regulations.'"

On page "LYNX-23" I would insert after provision "B" the following subparagraph:

---(c) The level of experience of the contractor and the inventor or inventors---

because it is an important measure of value.

Such words as "extent", page 3 in (d), 1-4 and 8, and "results" in (d) (8) introduce manifold difficulties which cannot be readily negotiated, nor determined, yet would be binding on the administrator.

I say let's get on with the project! Let us work under the rather successfull NASA -- type patent (intellectual property) type of policy, if — I must make a choice.

In conclusion I invite attention to the fact that the American Patent Law Association, in its letter to September 26, 1974, to Congressman Udall by its then President, John Kelton, copy enclosed, indicated approval of the study provision. It also indicated strong disapproval of section 113 of S. 1283. Speaking of the provisions of the section which includes compulsory licensing, even as herein discussed, he stated in part,

> "Indeed, we believe they would be destructive of the purposes of the Act in that they would furnish strong disincentives for qualified individuals and organizations to enter the program, conduct research and accomplish the development that is required if the aims of the Act are to be obtained."

The Bar Association of the District of Columbia, in its letter of October 3, 1974, by its President, Lawrence E. Carr, Jr., to Mr. Udall stated in part,

> "The Association is in favor of having the ERDA Administrator conduct, on the record, public hearings in order to establish truly effective patent regulations which will aid in achieving the objectives of the Act. (underscoring supplied)

The Congress had before it in legislating the Clean Air Amendment Act of 1970 a provision permitting the administrator to effect compulsory licensing of any patent, trade secret, or other intellectual property. The Congress did not go along. There was opposition to the provision (originally section 309) and it was removed in the conference. However, nopublic hearings were held on the provision which Senator McClellan offered by letter to quickly consider in his subcommittee on patents, but to no avail. Present section 308 of the Clean Air Amendment Act of 1970 was put in at the last moment, also without public hearing. It is limited to patents only.

There is ample Congressional precedent to refuse at this late date, with the emergency upon us, to enact any kind of compulsory licensing of intellectual property of any kind of non-contracting persons or organizations. Our courts have always found ways to refuse to enforce patents when the public welfare demanded this result. City of Milwaukee v. Activated Sludge, Inc. 69F (2d) 577, 21 USPQ 69 (7 Cir., 1934) and other cases.

Present law permits use or manufacture by or for the U.S.A. of a patented invention. The patent owner's remedy is by suit in the Court of Claims. 28 USC 1498. The statute does not extend to divulging of trade secrets. Our government has never expressed in legislation the compulsory taking of privately developed trade secrets, as far as I know. There is no need for a sweeping provision as in "B".

The complexity of "B" when viewed in relation to "A" militates against the involvment of any persons or organizations to make a contract with the government under the provisions of "B". The truly competent would-be contractor will shy away from such involved proceedings as being too costly to him or it and as involving a high degree of risk of capital and time.

On the basis of everything I know and have experienced, I can categorically assert that any compulsory licensing of a patent of a non-contracting patent holder will work as an urgent disincentive to all would-be patent holders in the energy and closely related fields to conduct R & D to make and to develop inventions in those fields, including inventions of any device, material, process, or composition which may find application or utility in said fields.

Our country is now faced abroad with a large energy monopoly! The OPEC countries which have the largest proven reserves of oil have quadrupled the price of oil only recently. I will not dwell on this matter of which you know. I will only say that such a "cartelization" or "conspiracy" would be illegal in the U.S.A. and the armed might of the U.S.A. would enforce, if necessary, a final court decree in such a situation. The U.S.A. way to alleviate the energy problem is to proceed by peaceful means. This is the raison d'etre of ERDA.

Intellectual Property policy of ERDA must be such as to encourage invention and innovation. Please refer to the enclosed copies of letters to Representative Udall, January 30, and September 9, 1974, and to Senator Jackson, November 11 and 18, 1974, from the Executive Director of the Association for the Advancement of Invention and Innovation (AAII) former Commissioner of Patents, Edward J. Brenner, who as you know was a member of the President's Commission on the Patent System.

The U.S.A. government "...should get what it pays for!" Yes, it should get the best, most competent persons and organizations to bid on government contracts to be made by the Administrator of ERDA.

Such would-be contractors, even as said by Representative McCormack, are "...frightened to death..." of provisions under which "They say they cannot work." (Congressional Record, August -2, 1974, H8918.)

I do not believe that our President at this late date will contradict the Congress on a patent policy provision, especially since, according to my information, it has had OMB approval. However, there is always the possibility that the policy provision can be improved, especially if the bills are held over to the next Congress.

It has been my experience in connection with patent legislation that as a rule OMB is not sufficiently understanding of patent matters. It is for this reason that the OMB-refereed Administration Patent Law Reform bill (termed "Deform Bill" by former Commissioner of Patents Edward J. Brenner, a Chemical Engineer) was defeated in this Congress after tremendous push given it by its principal authors--one or two persons in the Antitrust Division of our Justice Department and one or two staff persons in the Senate.

I should add to my enclosed letter, respecting the required determinations to be made by the Administrator, when he considers licensing, that he must also determine that the grant of a license will not

> "...tend substantially to lessen competition or result in undue concentration in any section of the country in any line of commerce to which the technology to be licensed relates."

Under such provision the Administrator and the would-be licensee might well find themselves codefendants in a law suit brought by a competitor. In the law suit there could be interrogatories, depositions, and all kinds of excursions into the business secrets and practices of the would-be licensee. This might well discourage a competent would-be contractor.

As noted by Mr. A. L. Conn, of the Thursday morning's panel, following my remarks from the floor, patent policy provisions in the Office of Coal Research were considered by authority there to have severely limited the number of would-be contractors to only three. Accordingly, how a would-be contractor will view any patent policy provisions--and whether it will be a disincentive to negotiate for a contract--should be made known to those establishing such policies, often without public hearing. A similar situation is related in the Congressional Record by Senators Byrd and Jackson, January 31, 1972, page S733, regarding the disincentive of §6(d) of the Saline Water Conversion Act of 1971. Though the coal and water provisions are admittedly different from "B" they illustrate that patent policy must provide the necessary incentives acceptable to the would-be contractor who has the competence to give to the government that for which it has paid.

C. U.S.A. should "receive" what it pays for. Our country, i.e., our government should receive the fullest quid pro quo. Any provision of the law which discourages the best or most competent to become contractors will surely spend public funds without the U.S.A. receiving what it has paid for.

Viewing the nature of the human animal, the emphasis should be laid upon obtaining the best contractors rather than upon fear-induced provisions which will discourage the best to come forward to contract. The President's Memorandum as above-noted asserts applicability of the anti-trust laws. The administrator will know this when he makes his findings under the act. Providing statutorily that he must make an anti-trust finding opens a pandora's box. Also, the would-be contractor will know this! The statutory provision puts an undue emphasis where no emphasis should be placed.

* * *

I enclose a paper prepared by me while attending "Industry Collaboration In Energy R&D" of December 16, 1974, which is further evidence of my personal interest in this matter. Also enclosed is a copy of my comments at the Chemical Engineer's Annual Plenary Meeting in Washington, D.C., in 1974.

I have been interested in the welfare of our country through its patent, anti-trust and related laws for a great many years and was involved very actively in the elimination of Section 309 of the Clean Air Amendments Act of 1970 -- replaced by Section 308.

Best regards,

Paul L. Gomory

attach.

PLG:dp

try to invent something similar and better, or different and better. Also, the knowledge disclosed helps inventors and researchers to carry on to the next step.

1- A patent is granted on an invention which heretofore has not existed -- hence the phrase "patentable invention" -- meaning something definitely not in the public domain or within the skill of the routineer.

2- A patent secures the exclusive right to the invention originally or inherent in the inventor or in his transferee.

3- The anti-trust laws govern the misuse of the patent secured rights, i.e., the doing of something not reasonably within the rights secured by the grant.

4- Patents have been granted in this country for about 200 years.

5- The anti-trust laws were enacted to preserve open, free competition in the market place for goods in the public domain. And, also, there has been no intent to prevent the patent holder from doing as he saw fit with his patent grant, i.e., with his right to exclude others. Motion Picture Co. v. Universal Film Co., 243 U.S. 502. The Constitution recognized the inherent "exclusive" right.

6- Again, a patent takes nothing from the public domain. The price for use of the patented invention should be whatever rewards the inventor providing him with the incentive to do more.

7- The government patent policy in the President's Memorandum of August 23, 1971 at "Basic Considerations -- D" includes the following sentence

> "Where exclusive rights are acquired by the contractor, he remains subject to the provisions of the anti-trust laws."

I MANDATORY LICENSING

A. Providing for mandatory licensing of any right diminishes the value of that right. The diminished right is less worth seeking to produce. Thus, a contractor facing mandatory licensing of any kind is less likely to put his competency know-how or background information into play if along the line an exclusive right for which he has contracted will be taken away from him. The many problems encountered to define background information need not be elaborated here.

Reasonable consideration shows that in virtually all cases where there is a marketable invention it will be marketed directly or by imitation if not precise duplication. A balanced view requires that the services of the most competent contractor be obtained. The most competent will have the most know-how and the least likely to want to risk it into a mandatory licensing distribution system.

I therefore strongly urge ERDA to consider revising its patent regulations to establish an Institutional Patent Agreement program for qualified non-profit educational institutions, at least as regards research not falling within the Atomic Energy Act of 1954, as amended. I believe it is especially important that ERDA, as a major supporter of university research take this opportunity to adopt the recommendation of the FCST Committee on Government Patent Policy concerning university inventions.

In line with the above, I would also like to take this opportunity to urge ERDA to include recommendations in the report it is now preparing in response to the requirements of section 9(n) of the Federal Nonnuclear Energy R&D Act to make clear its authority to follow the policy recommended by the Committee on Government Patent Policy as regards research under the Atomic Energy Act of 1954, as amended. Further, I gather that there may be some differences of opinion concerning ERDA's authority to adopt the recommendation in question with respect to nonnuclear research. If you believe that the present language of section 9 of the Federal Nonnuclear Energy R&D Act is not sufficiently flexible to allow ERDA to follow the recommendation as to nonnuclear energy research, then I would urge you to recommend clarifying amendments.

Sincerely yours,

Guy

H. Guyford Stever
Director

cc:
Mr. James Denny
Mr. Kenneth Cage

the use of its patents, then ERDA can step in and use 28 U.S.C. 1498 and authorize other parties to utilize the patent or patents in question.

Many companies, including Fairchild, freely license their patents on a reasonable royalty basis, and the same is true in appropriate circumstances with respect to proprietary technical data. Unfortunately, it appears that an unjustified fear of patents and how they are used by industry has resulted in proposed rules which are unnecessary and very likely to be detrimental to ERDA's efforts. It is appreciated that some arguments have been advanced that the public needs to be protected when public funds are concerned. However, insofar as ERDA is concerned, it is far more important that the public receive the maximum benefit from ERDA's efforts by encouraging rather than discouraging the development of useful energy related inventions.

Very truly yours,

Michael W. York
Patent Counsel and
Assistant General Counsel

MWY:jg
cc: James E. Denny, Esq.
Assistant General Counsel for Patents
U.S. Energy Research and
Development Administration
Washington, D.C. 20545

3. It would appear that patent applications, etc. of the contractor would be available to the public under the Freedom of Information Act, 5 U.S.C. 552, although the U. S. Patent and Trademark Office by law, 35 U.S.C. 122, must maintain these applications in confidence. Moreover, this would appear to possibly extend to inventions which the contractor contended were not "Subject Inventions."

4. The contractor must secure acceptance of the various proposed provisions from its subcontractors and it is expected it will be very difficult to get such acceptance.

5. The mere possibility that ERDA could obtain rights to unidentifiable contractor background patents would automatically decrease the value or potential value of the contractor's entire portfolio of energy related patents and it would appear that by entering into an ERDA contract the contractor could be required to maintain this portfolio of energy related patents in trust for ERDA and hence could not transfer or grant certain license rights to these patents to others. Moreover, it does not appear that a time limit is placed upon this requirement.

6. Although a request for a waiver is possible, the contractor is discouraged from doing so since all material submitted will be made available to the public. Moreover, even if this expression of public availability were to be deleted, the public probably could obtain the information under the Freedom of Information Act. In addition, this waiver can subsequently be terminated or modified, which seriously detracts from its value.

7. In order for data to be "Proprietary Data" it must reach the level of being a trade secret, whereas there are many data items of a proprietary nature which do not meet the requirements of being a trade secret. This could be very damaging to a contractor, particularly in light of the Freedom of Information Act..

8. Trade secrets may be very valuable to a contractor in a variety of contracts in various fields and granting rights to the Government to privately funded background trade secrets could result in substantial damage to a contractor.

This proposed revision is incorporated in the National Aeronautics and Space Act of 1958 as statutory patent policy and Section 9.(a) (1) and (2) of ERDA's Patent Policy closely follows the NASA Act. Therefore, we believe the proposed revision should be recommended to Congress to eliminate the uncertainty created by the phrase "in the course of or under."

We trust you will find our comments constructive and useful.

Very truly yours,

E. J. Gornowski

EJG:11

Summary

While we have discussed several troublesome or critical aspects of the ERDA patent policy regarding Nonnuclear energy research we would stress that in most of our comments the thought is expressed that in the early developmental stages of the ERDA program, great weight must be given to assuring that patent policy will not create major disincentives to the participation by the most qualified high technology firms. As a corollary, we are aware of the activities within the Government Patent Policy Committee to implement recommendations of the Government Procurement Commission seeking a uniform Federal patent policy. We suggest that the final ERDA patent policy also be considered in the light of these committee activities.

As to the ability to sublicense after contracting, such a policy would be completely consonant with the ERDA philosophy of widest possible dissemination of energy R&D.

With respect to the provision for the granting of exclusive licenses within Subsection 9(g) of the statute, we urge that the ERDA personnel strictly apply the provisions of this Section to prevent any abuse of the exclusive license concept. As a general proposition it appears unfair at an early stage following an invention to tie up technology through an exclusive license in a third party and thereby penalize the innovative contractor. He may well intend to commercialize and spread technology but simply has not yet reached the point of commercialization.

Foreign Filings

As to foreign filings, we strongly favor the language in the enabling statute which provides that the contractor shall be afforded the right to obtain foreign patent rights. We were surprised in reading the recent regulations published by ERDA that the implementation of the enabling statute has changed this right to one only where he qualifies for a waiver at the time of contracting. We, of course, urge that these regulations be changed to be consistent with the enabling statute.

Foreground Data

We urge that the contractor's right to use data generated under the contract be preserved. A contractor generating technical data should clearly be able to use it for his own purposes. Allowing a contractor to use such data is consistent with the basic principles of the energy program; e.g., assuring the widest possible dissemination of energy products and technology.

We urge that the basic ERDA statutes be restructured to meet these disincentives by allowing for the contractor to retain title to inventions. We noted, for instance, that the Government Procurement Commission in its alternate recommendation opted for title to be placed in the contractor with certain stipulations to assure commercialization. We commend that study to your attention.

Revocability of Licenses

Turning now to licenses in the contractor it is only reasonable and desirable that any license the contractor retains under the Subject Invention should be irrevocable. As a matter of interest, it would appear that the only reason for ERDA establishing a policy of revoking licenses to the contractor is to provide Government with the right to grant an exclusive license to others. We believe that experience has shown that it is only in the most rare of cases that the granting of an exclusive license to someone other than the contractor is necessary to force commercialization of an invention -- so rare in fact that to us it appears unreasonable to premise a policy of giving the contractor a revocable license on such rare instances. It appears illogical to think that if the contractor, with all of his background and understanding of the invention is unable to commercialize it, that the Government by revoking the contractor's license, and giving a third party an exclusive license can generate a successful commercialization of the invention. Here again, we submit that the ERDA policy, while perhaps well-intended in terms of spread of technology, when viewed in the actual realities of the marketplace is both unreasonable and counter-productive. We urge that in every case the contractor be granted irrevocable licenses.

any questions about our comments or if we can further assist you in any way.

Very truly yours,

Robert C. Kline

Robert C. Kline
Chief Patent Counsel

CC: Kenneth L. Cage, Esquire

1. What patent policy should ERDA follow in order to carry out the purposes of the Atomic Energy Act and the Federal Non-Nuclear Energy Research & Development Act of 1974?

We suggest that ERDA's patent policy be formulated to

- stimulate the development of inventions related to new and underdeveloped energy sources as well as more efficient energy use, and
- encourage the commercialization of such inventions.

We believe this would be best accomplished by a policy which would provide the historical incentives of the present patent system. This would encourage participation by companies which likely could contribute most to ERDA's programs due to their already being heavily involved in R&D in these technologies.

2. What modifications should ERDA propose to Congress regarding the patent policy in these Acts and why are such modifications needed?

We support the existing patent provisions of the Non-Nuclear Energy Act and recommend that no changes be made to it. They provide ERDA with the authority to negotiate with contractors regarding rights to patents and technical information resulting from cooperative research efforts, and authority to waive such rights if a waiver is found to be in the best interests of the United States and the public. Such authority is needed to encourage wide industry participation in ERDA projects and to give ERDA flexibility to deal effectively with situations which cannot be anticipated. A rigid policy requiring ERDA to take title to patents resulting from cooperative research or otherwise denying a private party a reasonable reward for its background rights or its efforts to discover improved technologies would seriously discourage industry participation.

3. Is legislation requiring mandatory licensing of energy related patents needed to carry out the purposes of the Federal Non-Nuclear Energy Research & Development Act of 1974?

The U. S. patent system offers inventors and industry a reasonable incentive to spend the time and money necessary for

is information concerning: "the extent to which the field of technology to be funded under the contract has been developed at the contractor's private expense."

Subpart B - Technical Data and Copyrights

Section 9-9.201. Definitions. It is noted that "proprietary data" must itself fulfill the requirement for a trade secret.

> Comment: Obviously if the contractor is to rely upon data withhold under the technical data requirements of the contract, as later spelled out in Section 9-9.202-3 (c), he must be in a position to establish his data as a trade secret. Is this really practical?

(c) Technical data requirements clause. It is here required that the contractor at any time during the contract performance or within one year after final payment furnish, at the written request of the Contracting Officer, "a set of engineering drawings sufficient to enable manufacture of items or equipment furnished under the contract, with the exception of components or items of standard commercial design or prior fabricated items, for competitive manufacture by a firm skilled therein." The technical data required must be of the type ". . . customarily retained in the normal course of business, . . ."

> Comment: Query: Does this provision require that the contractor or subcontractor hold himself ready to generate detailed drawings of a type not customarily generated in the type of contract work undertaken? The matter of customary retention appears considerably different than that of data generation, particularly when data must extend to the depth of enabling manufacture by another--in the case of complex equipment a frequently difficult task. Many contractors will not be in a position to generate such engineering drawings without a substantial additional work force and substantially increased costs. It will be extremely important to the contractor that the cost provision in paragraph (d) which treats such additional data generation during the contract as a matter for Changes coverage, provide for all costs entailed by the contractor in any such effort.

(d)(5) Optional clause -- third party licensing. This clause is complemental to the background patents clause in requiring limited license rights in and to contractor proprietary data to permit practice of the related technology.

prime or upper-tier contractor, as by waiver or retention of background rights, do not automatically flow downward to subcontractors. Hence, the latter must operate in a difficult position through the prime contractor to adequately assert their position and obtain an equitable disposition of invention rights. The subcontractor, like the prime contractor, is further faced with the nebulous policy statement contained at Section 9-9.107-3(a) which states that: "Whenever any invention is made or conceived in the course of or under any contract of ERDA, title to such invention shall vest in the United States unless the administrator or his designee waives all or any part of the rights of the United States."

> Comment: The subcontractor faces an uncertain prospect of negotiation with regard to a progressively declining share of the procurement dollar, depending upon his particular tier, and in many instances a greater vulnerability by reason of lesser diversity of product line and more jugular exposure to government incursion into his proprietary position. Faced with the Christenson decision, what is the subcontractor to think of the policy statement set forth in Section 9-9.107-3? Query: What is anyone to think?

(k) Background patents. It is indeed regretable that the Agency has seen fit to enter this territory which is one of the prime assets the contractor has over his competition in the marketplace. The contractor is here faced with granting a royalty-free nonexclusive license to the government for its purposes of research, development and demonstration work and also granting to responsible parties a nonexclusive license under: ". . . terms that are reasonable under the circumstances." Again the contractor is typically faced with the prospect of unilateral determination by the Administrator or his designee concerning the propriety of any particular disposition of background rights and although this section would appear to be somewhat palatable to the contractor in view of 4(ii) (which would appear to preclude the necessity for licensing background patent rights if the contractor is supplying the subject matter of the background patent in sufficient quantity and at reasonable prices to satisfy market requirements), this provision is subject to deletion by Section 9-9.107-5(b)(6).

> Comment: How can industry profitably undertake privately funded development of a background position, only to be

(c) Minimum Rights to the Contractor. Under the clause the contractor reserves a revocable, nonexclusive, paid-up license in each patent application filed in any country on a subject invention. Query as to the incentive toward innovation and generation of patentable inventions if the contractor must be faced with the possibility that his license may be revoked by the very act of inventing! The right of appeal under 10 CFR 781 gives him little comfort.

(4) Foreign patent rights. Throughout the clause, but particularly in this Subsection, there are provisions for unilateral determinations by the Administrator or his designee, e.g., to terminate foreground patent rights granted by the clause; require the granting of nonexclusive or partially exclusive licenses; determine the relevancy of information presented bearing upon the grant of foreign patent rights under the contract and even determine whether: ". . . such foreign patent rights have tended substantially to lessen competition or to result in undue market concentration in any section of the United States in any line of commerce to which the technology relates; . . ."

> Comment: Foreign patent rights are on an extremely shaky basis if unilateral administrative determinations are to govern the exclusivity of the contractor's foreign patent position. The guidelines appear particularly deficient. Query: the right of contractor appeal.
>
> It is noted that the employee-inventor may request, with the authorization of the subcontractor, greater rights determinations. As elsewhere in the proposed rules, does the ascribing of rights to the employee-inventor carry with it duties of performance? What is ERDA's position concerning enforcement of obligations against the employee per se?

9-9.107-5 (a)

(e) Invention identification, disclosures, and reports. Under this section the contractor is required to furnish: "(i) a written report containing full and complete technical information concerning each subject invention . . ."

> Comment: This appears to be a heavy obligation to levy upon a contractor for each subject invention, even though the invention may not have been reduced to practice and there may be no intent to file for patent coverage.

(c) It is here stated: ". . . the government may have to acquire the right to direct licensing of background patent rights to insure reasonable public availability and accessability necessary to practice results of the contract work in the field of technology specifically contemplated in the contract effort."

Comment: This provision apparently stands for the proposition that the acquisition by the government of licensing rights in a contractor's background patents is an effective avenue to insuring reasonable public availability and accessability. It is respectfully submitted that quite the opposite is the case; and that, in fact, the contractors who have worthwhile background positions of potential benefit to ERDA programs will be discouraged from participating where faced with the uncertainties of negotiating an equitable position with respect to background patent rights. This will be particularly true in contracts where the effort funded by ERDA will be small in proportion to the value of the prior privately funded efforts of the contractor. Quite probably this will be the case in many demonstration situations.

Suggestion: Leave background rights with the contractor and open them to licensing only if the contractor is unable to fulfill market needs, thus with items in reasonable quantity and at reasonable price. With this assurance, contractors will be encouraged to privately fund and build background positions of real potential benefit to the public, looking to the legitimate objective of a profit in the marketplace. Given a good potential market, it may be anticipated that competitive solutions will be offered by a plurality of contractors, with the open marketplace determining acceptability of each. ERDA is thereby relieved of funding developments already potentially available via normal profit incentives.

9-9.107-(4) Procedures

(a)(4) This provision takes us from the premise of Section 9-9.107-(3)(c) that the government may have to acquire right to direct licensing of background patent rights to a requirement that: ". . . the patent rights clause in contracts over $250,000 shall normally include provisions obtaining rights of the type specified in Section 9-9.107-5 to such background patents."

> "Where, for example, the contractor is required to provide third party licensing of background patents, consideration should be given to securing co-extensive license rights to third parties at reasonable royalties, and under appropriate restrictions, for contractor proprietary data in order to practice the technology resulting from the contract."

The Contracting Officer is given rights of inspection of contractor technical data at contractor's facility to determine that the data requirements of the contract are met.

It is evident that the proposed rules can be pretty much a one way street for extracting patent, data and other intellectual property rights from the contractor in such degree as to destroy contractor proprietary incentives. These rules have real potential for discouraging industrial participation in ERDA programs by firms having the most to offer, namely those possessing valuable background capabilities or new products and processes of potential use to ERDA, but not yet fully proven. If this technology must be exposed to an uncertain fate of conveyance or licensing to the public instituted by ERDA, with the prospect, at best, of royalties--not profits--industry will utilize its own funds in alternative ventures where there are prospects for a reasonable profit, commensurate with management talent and technological capability. At the very time we need the best talent in ERDA programs, we're discouraging its participation!

It is recommended that guidelines for accomplishing waiver of Government rights either at the time of contracting or of identification of the invention, be added which call for the contractor normally to retain title to inventions made under the contract, thereby to encourage their development in their spawning environment and better assuring <u>real</u> availability to the public through the marketplace rather than through a mere undeveloped paper patent ineffectually held by the Government. Then through appropriate terms of waiver, if the contractor cannot supply market need in sufficient quantities, at reasonable prices--and where commercial alternatives are not available--licensing to qualified third parties may be specified to the extent necessary in meeting such need. Licensing of Background patent rights is presently called for on this same basis in the long form patent rights caluse Section 9-9.107-5. Procedures should be established to safeguard the rights of the contractor and the interests of the public in assuring that licensing is effective in meeting ERDA objectives.

Since ERDA does not offer an R&D contractor the prospect of significant follow-on hardware procurement by the Government and accompanying potential for reasonable profit, the incentive for the contractor must stem from participation per se in ERDA's research, development and demonstration programs. Typically, however, monetary profits from performance of Government research and development contracts are not large and the accompanying administrative burden is very heavy, particularly for those organizations not typically engaged in Government contracting and unfamiliar with its many demanding requirements.

What then, is the potential benefit to the prime or lower tier contractor contemplating business with ERDA? It must largely be found in the early acquisition of know-how and the possibility of moving up the developmental learning curve through ERDA contract funding. But what must the contractor give up with respect to intellectual property rights, both prospectively under the contract and by way of his independently developed background rights?

In the area of foreground inventions or those conceived or first actually reduced to practice under the contract, the contractor conveys title to the Government, reserving to itself a license to practice the invention. Even this right in the contractor is subject to revocation by the Government upon certain conditions. Thus the contractor faces the uncertain prospect of not being able to practice his own inventions! Section 9-9.107-3(b) states:

> "(b) In contracts calling research, development or demonstration work and in other special contracts, the Government shall normally acquire title in and to any invention or discovery conceived or first actually reduced to practice in the course of or under the contract, allowing the contractor to retain a non-exclusive, revocable, paid-up license in the invention and the right to file, upon written request to ERDA, and retain title in any foreign country in which the Government does not elect to secure patent rights. The contractor's non-exclusive license retained in the invention may be revoked or modified by ERDA only to the extent necessary to achieve expeditious practical application of the invention pursuant to an application for and the grant of an exclusive license in the invention."

Note that the above requirement extends not only to the prime contractor but to lower tier subcontractors as well. Further,

(having myself been in the Army JAG from 1950 to 1967, including seven years in the Patent Division) and from Jim Denny's background that this flexibility will be visible at the top. This is important and can help to assure the success of ERDA's research effort.

Again, thanks for your consideration in this matter and for providing a forum for industry.

Sincerely,

Sid Walker

Sidney J. Walker
Government Affairs
Patent Counsel

Enclosure a/s